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Telecommunications Regulatory Development

COMPARATIVE ASSESSMENT of the
TELECOMMUNICATIONS SECTOR in the
TRANSITION COUNTRIES

Assessment Report  Turkey

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I. BACKGROUND AND OBJECTIVES

Under the Legal Transition Programme of the European Bank for Reconstruction and Development (the “EBRD” or the “Bank”), the Bank’s Legal Transition Team (LTT) has focused part of its work on the development of detailed analytical assessments of the state of legal transition in a number of commercial and financial sectors of its countries of operation. These assessments benchmark the developments in each country against international or harmonised standards, providing a clear analysis of the existing legislative framework and identifying gaps and future legal reform needs.

The EBRD commenced a project in May 2008 to assess the communications sector in each of the Bank’s countries of operation. The communications sector in this context refers to the market for the supply of telecommunications services, principally fixed line, mobile and broadband services.

The EBRD’s 29 current countries of operation are Albania, Armenia, Azerbaijan, Belarus, Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic¹, Estonia, FYR Macedonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Mongolia, Montenegro, Poland, Romania, Russian Federation, Serbia (including Kosovo), Slovak Republic, Slovenia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Turkey, which has applied for EBRD country of operation status, has been included in this assessment to provide a further reference for comparison.

The purpose of this assessment is to examine whether the legal and regulatory framework for communications in the Bank’s countries of operation is sufficiently extensive to secure fundamental sector transition and reform objectives. It therefore measures the state of play in the communications sector (i.e. status, progress, level of approximation of local laws/regulations to international standards, future needs, etc).

EBRD also wishes to be in a position to assess the effectiveness of its technical cooperation efforts as well as pinpointing elements the Bank could provide new or additional technical assistance in furtherance of its mandate.

EBRD contracted consultants Cullen International SA (CI), in conjunction with Development Dynamics Limited (DDL) (the “Consultant”) to collect and analyse the required data and to prepare an assessment report (the “Assessment”).

The results from the Assessment are being published on the EBRD website (http://www.ebrd.com/country/sector/law/telecoms/index.htm) and, on a standalone basis, while summaries of the Assessment will appear in EBRD’s economic review, Transition Report (2008) and in EBRD’s legal journal, Law in transition (Spring 2009).

The specific objectives of the communications sector assessment are:

- Firstly, to provide a credible assessment of the communications sector in the Bank’s countries of operation in order to encourage, influence and provide guidance for ongoing and future legal reform efforts in those countries.
- Secondly, the information provided by the assessments can assist the EBRD to measure legal and regulatory risk in its countries of operations and in specific investment activities.

¹ Although the Czech Republic is no longer an EBRD country of operation it has been included in the Assessment for comparison purposes.
II. SUMMARY OF COMMUNICATIONS SECTOR IN EBRD COUNTRIES OF OPERATION

1. EBRD countries in South East Europe

This section includes summaries of the status of the telecommunications sectors in those countries in South East Europe (SEE) where EBRD is active. The EBRD countries of operation that are in this sub-region are Albania, Bosnia & Herzegovina, Croatia, Montenegro, Serbia (with Kosovo assessed separately), and FYR Macedonia. Turkey has been added to this sub-region, as it has applied for EBRD country of operation status, and acts as a useful comparator.

This information is copied from the first report of the study: Supply of services in monitoring regulatory and market developments for electronic communications and information services in enlargement countries", which is being performed by Cullen International for the European Commission. This report, which has been in development from the second quarter of 2008, is planned for publication on the European Commission’s website in the September/October time frame.

The summaries are intended to provide an insight into the regulatory regime and to highlight factors that have influenced the regulatory assessment.

2. Turkey

Turkey has applied for EBRD country of operation status and has been included in the assessment as a useful comparator. Turkey was assessed during the current parallel project: “Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries”: This is a European Commission project with the first monitoring report due in the 3rd quarter 2008.

a) Institutional framework

The Ministry of Transport defines the state policies and strategies for the telecommunications sector. The Ministry is also responsible for implementation of the universal service and plays a key role in establishing the authorisation regime for the telecommunications services and/or infrastructure subject to concession agreements. Under the Turkish authorisation framework, the NRA prepares and submits to the Ministry proposed schemes on authorisation covering description and scope of the service, possible timing of the tender procedure and the number of concessions to be issued. The Ministry then presents such schemes for an approval by the Council of Ministers, and then the tender procedures are executed by the NRA.

The Telecommunications Authority is an administratively and financially independent national regulatory authority in the telecommunications sector.

The decision making body of the Authority is the Telecommunications Board that consists of seven members, including a Chairman and a Vice Chairman. The Chairman is also responsible for the general management and representation of the Authority. Board members are appointed for a period of five years by the Council of Ministers. Two of them are nominated by operators having at least 10% market share, one member – by the Ministry of Industry and Trade and the Union of Chambers and Industry, and three members – by the Ministry of Transport. Appointments require approval by the President of the Republic. The Board members can only be dismissed before expiration of a term by the Council of Ministers for inability to work because of serious illness, professional misconduct or criminal offences.

The Authority has independent sources of finance, including frequency fees, pre-determined contributions from operators, any fines it levies on operators and revenues obtained through consultancy and training. Any surplus that may occur at the end of the year is transferred into the State Treasury. The accounts of the Authority are audited by the Supreme Audit Council of the Prime Ministry, the Ministry of Finance, and the Council of Inspectors of the Prime Minister.

The Authority’s responsibilities cover issuing of authorisations in the field of telecommunications networks and services, regulation, inspection and arbitration. The Authority has three main types of legal instruments at its disposal to execute its regulatory intervention. Ordinances (or Regulations) come immediately below laws in terms of legal hierarchy. Communiqués are at the...
second level and are often issued on the legal basis of Ordinances. At the lowest level, there are the decisions of the Board.

Secondary legislation and Board decisions can be appealed at district administrative courts or the Council of State, the highest administrative court in Turkey. There has been an intention to make the Council of State the sole appeal body for the decisions of the Authority, but this has not been accomplished yet.

b) Regulatory independence

The Government retains a 30% ownership in the incumbent operator Türk Telekom controlled by the Treasury. The Government also remains an important shareholder in several other operators. Furthermore, one golden share in Türk Telekom is controlled by the Ministry of Transport that also exercises regulatory functions in the telecommunications sector. Therefore, the separation of the regulatory from the ownership and control functions has not been achieved.

The framework for privatisation of Türk Telekom was established in 2001 stipulating that one golden share would be retained by the government. On July 1, 2005, a 55% share in Türk Telekom was auctioned to a consortium led by Oger Telecom. On December 10, 2007 the Cabinet of Ministers decided to privatise an additional 15% of Türk Telekom shares through an IPO. Since May 15, 2008 Türk Telekom has been trading at the Istanbul Stock Exchange.

c) Market access and authorisations

The provision of domestic long distance and international telecommunications networks and services was liberalised from January 1, 2004, and the liberalisation of local services was formally introduced in July 2005. In practice, the licensing framework for local services was only adopted in August 2007. So far, no licences for the provision of local telephone services have been issued and Türk Telekom remains the only provider.

Depending on the scope of telecommunications activities, the Turkish authorisation regime provides four different types of individual authorisations issued by the Authority:

- authorisation agreement: issued to state-controlled operators, where the state ownership is more than 50%;
- concession agreement: issued following a tender procedure to a limited number of companies providing telecommunications services or operating telecommunications networks on a national level;
- Type 1 licence: issued following a tender procedure to a limited number of companies providing telecommunications services or networks at local level;
- Type 2 licence: issued to companies providing telecommunications services or networks, where the number of providers is unlimited. This category includes long distance telephony services (A, B and C-type), cable TV, satellite, public phones, intelligent networks and value added services.

Individual licences under each of the four types of authorisations are limited to narrowly defined services or activities that are set out in 14 annexes to the Ordinance on Authorisations. Each annex sets out specific authorisation conditions for a specific service.

One-off licence fees for long distance telephony services under Type 2 licence are the following:
A-type (CPS services) – TRY 571,446 (€286 K), B-type (CS services) – TRY 253,976 (€127 K), C-type (services provided through a 10-digit number assigned by the TA) – TRY 126,988 (€64 K).

The annual fee is set as 0.5% of annual net sales or one off licence fee/15, whichever is larger.

A general authorisation regime with notification to the Authority applies only to ISPs and operators providing SMS services over mobile networks. The one-off fee for this type of services is set at TRY 2,730 (€1,365).

d) Significant market power

Although the EU 2003 regulatory framework has not been formally implemented into Turkish law, the Authority decided in its 2005 work plan to adopt the definition of the 18 relevant markets according to the European Commission recommendation on relevant markets of 2003 and
conduct market analyses as foreseen under the EU framework. Market definitions and SMP concept in line with the EU 2003 framework are set out in the document on relevant markets and SMP published by the Authority in March 2005.

- In December 2005, the Authority completed analysis of the wholesale markets for mobile access and call origination and for voice call termination on individual mobile networks, corresponding to markets 15 and 16, respectively. All three MNOs, Turkcell, Telsim, and TT-TIM were designated as having SMP in the mobile call termination market, and Turkcell – also as having SMP in the mobile access and call origination market.

- In March 2006, the Authority completed analysis of the relevant fixed markets, wholesale and retail, corresponding to markets 1-14, and designated Turk Telekom as having SMP in these markets.

The Authority has some discretion in imposing regulatory obligations, but certain remedies are predefined by law. The Ordinance on Access and Interconnection adopted in 2007 specifies that once an interconnection obligation has been imposed on an operator with SMP, non-discrimination, transparency and cost-orientation obligations are triggered automatically.

e) Competitive safeguards

The following competitive safeguards have been implemented in Turkey;

- CS/CPS in fixed network has been available since the second half of 2006 for long-distance and international calls, as well as for call to mobile numbers; it is however not available for local calls and for calls to mobile numbers;

- RIOs published by fixed and mobile operators with SMP;

- RUO available since November 2006 and regulated reference offer for wholesale bitstream access – since August 2007;

- number portability, following the implementation of the centralised reference database in May 2008, must be implemented by November 2008 for mobile networks and by May 2009 for fixed networks.

f) Universal service and consumer issues

Under the Universal Service Law No. 5369 of June 16, 2005, the scope of universal service covers fixed telephone services, public payphones, printed or electronic directory services, emergency call services, basic Internet services and passenger transport services to places that can be reached only through sea transport and maritime emergency and security communications services. This list was extended by the Council of Ministers to include two further elements: 1) services oriented to spread information technologies, including computer literacy, to help the development of the information society (February 2006), and 2) services for the provision of the digital broadcasting by the use of various broadcast media and technology via digital terrestrial transmitters to cover all settlements countrywide (April 2006).

The Universal Service Law envisages a tender procedure for the designation of universal service providers that has not been implemented so far. In June 2006, the Ministry of Transport issued the Ordinance on Principles and Procedures for the Collection of Universal Service Revenues and Execution of Expenditures that also clarifies the USO provider designation mechanism. First, the Ministry determines the relevant elements of the universal services and the specific locations where these services are to be provided. Then the providers of the universal services are designated based on a tender procedure. In rural regions, where the cost of the service provision is high, the Ministry is also authorised to impose temporary USO obligations on providers that have more than 70% market share in a given geographic market.

As universal service legislation has not been applied in practice, universal service is still provided by Türk Telekom in line with requirements set out in its concession agreement. At the same time, contributions to the universal service fund are collected from several sources:

- 2% of the authorisation fees collected by the Telecommunications Authority;

- 1% of net sales revenues of all operators except for GSM operators;
- 10% of payments by GSM operators to the Treasury;
- 20% of administrative fines collected by the Telecommunications Authority;
- 20% of what remains in the budget of the Telecommunications Authority budget after all expenditures are deducted.

These percentages can be increased by up to 20% by the Council of Ministers. These revenues are collected in the public budget and allocated to the budget of the Ministry of Transport, although no payments have been made so far.

g) Outlook

One of the key outstanding issues has been the adoption of the new electronic communications law, pending since October 2005, which would ensure a sound legal basis for application of the principles of the EU 2003 regulatory framework. Other aspects include the authorisation regime, including the authorisation of alternative local telephone networks and services and addressing the problem of high communications taxes imposed on operators which are detrimental to market entry, the implementation of universal service in compliance with the EU framework and the effective independence of regulatory body from the Government (which remains an important shareholder in several operators).

h) Assessment

Turkey is deemed to have “High compliance”.

Key indicators for Turkey

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.
III. REGIONAL ASSESSMENTS

A. SEE countries

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

**Regulatory environment**

Almost all countries in the South East Europe region have established an independent regulatory authority that meets the conditions defined in our assessment model\(^2\). Kosovo is deemed to have the weakest arrangement because the NRA is financially dependent on the state budget, it lacks a clear requirement for consultation with market participants and only one example is provided where the NRA has acted against the incumbent operator. Nevertheless, Kosovo is ranked on par with the best countries in the CIS+M group.

For dispute resolution and appeal, Albania, Croatia, FYR Macedonia, and Turkey can provide several examples of dispute cases that have been successfully resolved.

Some countries have legislation that triggers automatic suspension when a regulatory decision is appealed. This is the case for Albania and Serbia. Automatic suspension can seriously weaken the authority of the regulator, in particular where the appeal procedure is lengthy. In Croatia, an appeal can take several years.

**Market access**

FYR Macedonia, and recently Albania and Croatia after adoption of their new laws, have established a framework with general authorisations in line with the EU requirements for all activities that do not require access to scarce resources.

Serbia ranks at the other end of the scale, because it has not yet established an operational licensing regime for fixed telephony networks and services.

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\(^2\) The situation in Montenegro has changed following the passing of a new Law in August 2008, see footnote 16
The other countries have licensing regimes with some remaining deficiencies, in particular for telephony:

- Bosnia & Herzegovina have high licensing fees which may act as a barrier to entry;
- Montenegro grants licences through a tendering procedure;
- Kosovo has high licensing fees which may act as a barrier to entry;
- Turkey has restrictions on the granting of licences.

The provisions for granting rights to scarce resources are mostly correct. However, Serbia has been marked down for granting a mobile licence to the incumbent operator without a competitive procedure within the last three years.

**Operational environment**

All countries have a regime in place for market analysis and designation of operators with significant market power although it is fairly rudimentary in Kosovo.

In Albania, Bosnia & Herzegovina, FYR Macedonia, and Turkey the regimes meet or resemble the requirements of the EU, i.e. precise definition of retail and wholesale markets. In Montenegro and Serbia, the regime is still based on the 1998 *acquis* of the European Union, while Croatia is in transition from the 1998 to the 2002 *acquis*.

Most countries have designated SMP operators and established remedies to ensure fair competition. However, this has not yet happened in Montenegro. Serbia has designated two operators, but there is no available information on what remedies have been applied. Kosovo has designated an operator with a range of remedies, but only for retail markets. There has been no SMP designation yet for wholesale markets.

Albania, Serbia, and Kosovo have not yet taken steps to implement carrier selection, pre-selection and number portability. In Bosnia & Herzegovina and Croatia, these safeguards are operational, while in FYR Macedonia and Turkey they are now partly implemented.

Reference interconnection offers are implemented and operational in most of the countries. The main exception is Serbia, where a RIO is not yet established.

Only Croatia and Turkey have implemented local loop unbundling in practice. FYR Macedonia has established the enabling regulations, but cannot demonstrate that it is being used yet.

**Universal service**

All the countries meet the criteria for universal service as defined by our assessment model.

**Conclusions on regulatory compliance for SEE sub-region**

These assessments lead to the overall conclusions that:

- Full compliance is found in Croatia and FYR Macedonia;
- High compliance is found in Albania, Bosnia & Herzegovina and Turkey;
- Medium compliance is found in Montenegro and Kosovo;
- Low compliance is found in Serbia.
B. Performance against Sector Benchmarks

Information on the penetration of fixed networks, mobile services, and broadband services was collected from the EBRD countries of operation during the assessment. In most cases, this information is collected routinely by government ministries or sector regulators. In other cases, independent sources were used. In the case of the EU, fixed line penetration is no longer reported in the Implementation Report\(^3\), and we have relied on the ITU database for comparable figures. In some other countries, where figures in comparable form were not available centrally from government or regulatory sources, we have relied upon independent estimates from press releases or interviews with the main market operators.

In the graphical presentations that follow, fixed network penetration, mobile penetration and broadband penetration levels are compared within each of the three sub-regions (EBRD countries of operation in the EU, SEE countries, CIS countries plus Mongolia) and within the ETC countries, in addition to the EU with its 27 Member States. All penetration figures are expressed in terms of numbers of lines in service per 100 population.

To allow comparisons within each sub-region, and between sub-regions, the average penetration for each sub-region is shown on each graph. In some graphs, the range of highest and lowest is also shown for particular sub-regions.

For broadband, if the penetration has been estimated at less than 1 per 100 population (<1%), no figure is shown on the graphs.

For CIS+M and SEE countries, the information was collected in May and June 2008 and is quoted as the latest available (normally end March 2008). Where a date is known to be significantly different from March 2008, this is shown as a special note. For EU countries, the data relates to mid 2007.

Some Information was requested during the assessment on fixed operator interconnection charges for wholesale call termination rates (the actual figures requested were from the incumbent fixed operator for local, single transit and double transit per minute call termination charges). The figures shown in our benchmarking results are from countries where the results could be reasonably compared with equivalent EU27 average results, as reported in the 13\(^{th}\) Implementation Report. For this reason, only selected countries are shown. The figures expressed on the graphs are comparative to the EU results, using a simple average of the highest and lowest call termination charges for a country, compared to the equivalent average of the EU27 average country result. This is therefore an approximate measure of comparative interconnection charges, giving only a broad indication of the level of interconnection charges that are faced by operators in other regions, in comparison to the EU.

1. Fixed Network Penetration

Average fixed network penetration in CIS+M is around the same as the SEE region and the EBRD countries in the EU. All three sub-regional averages are significantly behind the average for the whole of the EU. Average fixed penetration in ETC countries is significantly behind all averages.

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Fixed network penetration SEE countries

Note: The shaded area in pale red represents the span between the highest and the lowest penetration figures in the EU Member States where the EBRD operates. The penetration figures are from the annual ITU statistics for 2007.

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

The EU countries achieved their relatively high levels of fixed network penetration before the introduction of mobile networks and during their monopoly period (up to 1998), in most cases largely under state control. The average fixed network penetration in EU27 countries is 45 per 100 population. For the EBRD countries of operation that are within the EU, fixed network penetration ranges from 20 to 43 per 100 population.

CIS+M and SEE countries generally failed to achieve average EU levels of fixed network penetration. Only Belarus, Croatia and Serbia, have achieved between 30-40 fixed lines per 100 population. The remaining countries, which reached only between 10-30 fixed lines per 100 population, have achieved far greater universality with mobile networks under competitive conditions than was ever achieved with fixed lines under monopolies.

Universal service policy in EU countries now includes issues such as whether the lack of availability or non-use by a minority of consumers results in social exclusion. This means that, with universality largely achieved, the focus of the market shifts towards consumer issues such as better payment options, and better services for disadvantaged customers (for example disabled users and low income groups).
Where low penetration countries have now started to implement effective universal service policies, such as Mongolia and Russia, the focus has been not only on increasing the penetration of basic services, but also on providing Internet services.

The countries which fall below their sub-regional averages on fixed network penetration are as follows:

<table>
<thead>
<tr>
<th>Sub-region</th>
<th>Countries above their sub-regional averages</th>
<th>Countries below their sub-regional averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBRD countries in EU</td>
<td>Bulgaria, Estonia, Hungary, Slovenia, Latvia, Poland, Czech Republic</td>
<td>Lithuania, Romania, Slovak Republic</td>
</tr>
<tr>
<td>South Eastern Europe</td>
<td>Serbia, Croatia</td>
<td>Montenegro, Bosnia &amp; Herzegovina, Macedonia, Albania, Kosovo</td>
</tr>
<tr>
<td>CIS plus Mongolia</td>
<td>Belarus, Russia, Ukraine, Armenia, Moldova</td>
<td>Kazakhstan, Georgia, Azerbaijan, Kyrgyz Republic, Uzbekistan, Turkmenistan, Mongolia, Tajikistan</td>
</tr>
</tbody>
</table>

Mobile service penetration

The rapid penetration of mobile services has been dramatic and is now exceeding fixed line penetration in all countries. The highest performers have been Lithuania, Latvia, Estonia, Bulgaria, Czech Republic, Hungary, Slovak Republic, Montenegro, Russia, Ukraine, Croatia and Serbia, which have all achieved penetration rates over 100%. The significantly higher rate (168%) for Montenegro is reported to be a result of the high number of tourists (relative to the county’s population) that take out a temporary mobile subscription.

The lowest penetration countries for mobile are Mongolia, Kyrgyz Republic, Tajikistan, Uzbekistan and Turkmenistan, each at still under 50%. These are the same countries in the CIS+M region that have the lowest fixed penetration. In SEE, the countries with the lowest mobile penetration include Kosovo and Albania, which also have the lowest fixed network penetration in SEE.
The countries which fall below their sub-regional averages on mobile penetration are as follows:

<table>
<thead>
<tr>
<th>Sub-region</th>
<th>Countries above their sub-regional averages</th>
<th>Countries below their sub-regional averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBRD countries in EU</td>
<td>Latvia, Lithuania, Estonia, Bulgaria, Czech Republic</td>
<td>Hungary, Poland, Romania, Slovak Republic, Slovenia</td>
</tr>
<tr>
<td>South Eastern Europe</td>
<td>Montenegro, Serbia, Croatia, FYR Macedonia</td>
<td>Albania, Bosnia &amp; Herzegovina, Kosovo</td>
</tr>
<tr>
<td>CIS plus Mongolia</td>
<td>Ukraine, Russia</td>
<td>Kazakhstan, Belarus, Azerbaijan, Armenia, Georgia, Moldova, Azerbaijan, Mongolia, Kyrgyz Republic, Tajikistan, Uzbekistan, Turkmenistan</td>
</tr>
</tbody>
</table>

Mobile Service Penetration: Countries above and below their sub-regional averages

3. Broadband penetration

In the EU countries, where fixed penetration is highest and the competitive safeguard of Local Loop Unbundling is obligatory on SMP operators, broadband has soared. In CIS+M and SEE, the countries that have the lowest fixed line penetration started with a major disadvantage here, with Kosovo, Montenegro, Bosnia Herzegovina, Albania, and the whole of the CIS+M region (except
Russia have less than a 5% penetration of Broadband. Russia has achieved only 6%, despite strong investment generally in the sector.

![Broadband access penetration graph](image)

**Note:** The graph does not show penetration figures under 1%. The shaded area in pale red represents the span between the highest and the lowest penetration figures in the EU Member States where the EBRD operates.

4. **Interconnection Charges**

One of the largest operating costs that a competitor faces when entering the telecommunications market is the wholesale interconnection charge that the incumbent fixed network operators make for terminating calls to their customers.

Wholesale interconnection arrangements are normally agreed between operators, but these arrangements become a main target for regulators when it is suspected that the incumbents are using their dominant position to restrict supply of interconnection capacity, or to charging higher than fair prices. Without regulatory intervention, incumbent operators with significant market power could use interconnection capacity restrictions and high charges to restrict competitors’ growth and to apply “margin squeeze”.

Regulators in the EU have successfully reduced interconnection charges, and made sure that the arrangements for interconnection are fairly applied by incumbents in an open, non-discriminatory manner. EU levels of fixed call termination charges have become the industry benchmark because regulatory action has managed to reduce these towards best practice long-run average incremental costs. This means that new entrants to the market only face modern technology-based incremental costs, and not the higher costs reflecting the historic inefficiencies of the incumbent.
Regulators in CIS+M and SEE have been less successful in applying this important competitive safeguard, as the graphs below illustrate.

![Relative fixed network termination charge (selected SEE countries)](image)

For details of the definitions of the main terms used in these graphics, please refer to “Explanation of assessment and results” in Section II of this report.

The assessment results show that generally, in countries where fixed networks call termination charges are relatively high, competition develops slower than in other countries.

Incumbent fixed network operators should not pass on their higher operating costs to competitors in the form of monopolistic call termination charges. Competitors cannot avoid paying interconnection charges, because they have to use the incumbent’s network to terminate calls to the incumbent’s customers.

This is therefore one instrument where CIS+M and SEE sector regulators could make rapid improvements in market conditions for competitors⁴. The EU experience has now given us reliable empirical data on interconnection charges from a many countries, which can be used confidently in other countries as proxies for best practice long-run incremental costs.

### IV. SUMMARY OF RECOMMENDATIONS

The general conclusion of the assessment is that for countries with only low or medium compliance, the most important steps to be taken are to achieve independent sector regulation and to put in place best practice competitive safeguards (especially SMP and interconnection). Other factors such as universal service, market access (including licensing/authorisation) and

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⁴ In September 2008, the telecommunications regulator in Albania enforced a reduction in call termination charges to align with the EU average
dispute resolution/appeals mechanisms are important steps, but they appear secondary when considering overall regulatory performance.

The key elements of the required reforms in medium and low compliance countries are:

- Regulatory Independence:
  
  First and foremost, the country’s legal framework must include the objective to establish a regulatory authority that is independent from the operators and reasonably independent from political pressure. In practice, such a legal environment may be in place, and yet the regulator does not necessarily behave in an independent and fair way. Real independence and fairness are difficult to measure in an objective way. However, the regulator has to demonstrate that it makes decisions that are fair, transparent, and non-discriminatory after taking into account the market conditions and by consulting widely.

- Competitive Safeguards:
  
  Competitive safeguards are those measures that are intended to protect new entrants against the anti-competitive practices of incumbent operator(s) with significant market power. Firstly there have to be formal and objective procedures to identify the existence of significant market power. This procedure should ideally be based on formal market definition and analysis according to competition law principles. Once it has been established that the designation procedure is in place, the next requirement is whether the procedure has been carried out whether the SMP operators been set proportionately and effective obligations such as the need to observe non-discrimination and transparency.

In addition, specific implementation (in legal provisions and in practice) of number portability, carrier selection and carrier pre-selection are required.

A proven safeguard is the use of a reference interconnection offer (RIO) that is approved by the regulator and published. This RIO should also apply to competitive activities of the incumbent operator. Similarly, the existence of a reference unbundling offer (RUO) and its actual use in providing services by alternative operators.

The countries most in need of reform for making the regulator more independent are Russia, Kazakhstan, Tajikistan, Belarus, Turkmenistan, Uzbekistan, and Azerbaijan.

These same countries, plus Ukraine, Kosovo, Armenia, and Serbia would benefit most from the introduction of more effective competitive safeguards.

Therefore, the main recommendations resulting from this assessment are;

1. Continue the fast pace of regulatory reform in South Eastern Europe, and apply special attention to Serbia and Kosovo, where the reforms have been slowest.

2. Significantly increase the pace of regulatory reform in the low performing CIS+M countries, particularly Kazakhstan, Tajikistan, Belarus, Turkmenistan, Uzbekistan, and Azerbaijan. The main focus of the needed reforms is regulatory independence and implementing competitive safeguards.

3. Continue reform efforts already well underway in all medium performing countries (particularly Montenegro, Mongolia, Ukraine, Kyrgyz Republic, Armenia and Moldova).

4. In countries where the dominant fixed network incumbent still charges high call termination charges (and other high wholesale fees to competitors), immediate benefits could be realised by regulatory action. Regulatory powers should be applied to enforce best practice long-run average incremental costs to be used by incumbents, and refer to EU empirical data as reliable benchmarks.

5. CIS+M countries still employing soviet-style “universal service” legacy policies should abandon these. For example:
● Unbalanced tariff structures (where line rentals and/or local calls are priced well below cost and are cross-subsidised by excess profits made on international and national calls) should be phased out as quickly as possible.

● The continued use state funds to subsidise loss-making services for basic fixed line rentals should be phased out in parallel with tariff rebalancing.

● Legacy policies related to the use of state subsidies should be replaced in favour of more modern technologically and competitively neutral policies, as demonstrated effectively in Mongolia.

6. In order to monitor the progress of reform, and to direct the focus of technical assistance efforts, the assessment needs to be on a regular basis of at least once per year. The assessment of the EU countries is already effective with widespread and up to date commentaries are easily available. For SEE countries, where regulatory reform has been most rapid, assessment is already improving as investors focus more on this region. The CIS+M countries need a more regular flow of information in order to perform regulatory assessments equal to the detailed understanding of the workings of the EU telecommunications framework.

7. For this reason, it is recommended that a formalised country tracking system is developed which can feed into regular assessments of telecommunications markets in the 12 CIS states plus Mongolia.

V. DATA COLLECTION AND ASSESSMENT METHODOLOGY

A. Information sources

The Consultant has drawn upon a variety of sector data and information, both inside and outside each country. Some background information was readily available and easily accessible for desk research. These sources included the European Commission; the International telecommunications Union; EBRD; World Bank; together with the websites of national regulatory authorities, national governments and their constituent ministries, official national data sources, local technical and general news and industry websites, professional data sources, international organisations and institutions, etc.

For the EBRD countries of operation that are in the European (EU), i.e. Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia, plus the Czech Republic, we have relied upon the “Progress Report on the Single European Electronic Communications Market 2007 (13th Report) {COM(2008) 153}”.

The primary source of data for the assessment of the remaining countries was the country sector authorities (i.e. national regulatory authorities, sector related agencies and sector ministries).

For the countries of South Eastern Europe (SEE), i.e. Albania, Bosnia and Herzegovina, Croatia, FYR Macedonia, Montenegro and Serbia, (with Kosovo assessed separately), the required data was collected alongside the parallel project: “Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries”: This is a European Commission project that was awarded to Cullen International in 2007. The first monitoring report was published on the Commission’s website5 in October 2008.

To achieve a consistent basis for the collection of data in the remaining EBRD countries of operation (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Ukraine and

Uzbekistan), a specially designed questionnaire was used. The full Questionnaire is included in Annex A.

The Consultant received a varying degree of co-operation from these authorities. Some countries have been fully co-operative, while authorities in other countries have been less responsive.

Where possible, particularly where the response of the sector authorities was insufficient or absent, appropriate alternative sources of data were referred to, including:

- Business information of interest to existing and prospective operators/investors such as licensing procedures, technical requirements, interconnection agreements, online forms for certification, authorisation etc. Here information, which explains and describes the procedures and requirements was looked for, rather than the mere formal documentation and legislation itself.

- Consumer and citizen Information: Information of interest to investors, prospective investors, end-users or prospective end-users about consumer information, universal service, consumer rights (and reporting abuses) and tariffs. In addition to actual legislation and formal guidelines, digested information was looked for, such as clear explanations (e.g. complaint procedure), and frequently asked questions (FAQs) on Ministry and regulatory websites, which will be important to the consumers.

- Telecom regulatory news and other news or journalistic based sources: This element covered information, regulatory news and developments published or available from researchers and journalists.

A full list of the people contacted in each country is given in Annex B.

Note: The information collected from the EU Member States and the South East European countries is a result of monitoring procedures and methods that have been developed over many years. The information collected from Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Mongolia, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan (collectively referred to in this report as “CIS+M” \(^6\)) represents a first effort to collect regulatory information with a certain level of detail. The availability of information from these countries can suffer not only from a varying degree of co-operation from the authorities, but also from what is often a lower level of transparency in general when it comes to many aspects of regulations. Accordingly, the same level of accuracy should not be expected for the information presented from these countries.

The above information was collected during May and June 2008 after which an assessment methodology developed for the purposes of the Assessment was applied. This regulatory assessment model is intended as a guide to place national regulatory arrangements for the telecommunications sector into one of four broad categories: Full compliance, High compliance, Medium compliance and Low compliance

Compliance in this context should be understood as compliance with the World Trade Organisation (WTO) Reference Paper on Telecommunications Services, which is explained below. It specifically does not mean full compliance with EU regulatory framework(s). Such compliance would require much more detailed assessment than that provided by this model. Furthermore, assessment and the assessment categories are intended to provide a quick guide to the overall situation in the country. This assessment model is intended to work with a wide range of national environments. In this context, we would expect that all EU Member States would be found fully compliant according to this model. The assessment indicators are intended to be as objective and factual as possible. Value judgments are avoided as far as possible.

In the assessment, each country is given a compliance score, as follows;

*Full Compliance* means an assessment score of 90-100

*High Compliance* means an assessment score of 75-89

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\(^6\) At the date of the assessment the Republic of Georgia was part of the Confederation of Independent States (CIS). The CIS Council of Ministers approved Georgia’s application to withdraw from the organisation on 9th October 2008.
Medium Compliance means an assessment score of 50-74
Low Compliance means an assessment score of under 50

Note: All compliance categories are defined as ranges of assessment values; This is also the case for “Full Compliance”, which may therefore not always represent 100% compliance in the sense of a score of 100. It is the highest assessment category in the EBRD assessment model, but there may still be some aspects of the framework that have been marked down by the assessment model.

The details of the regulatory assessment model and methodology are given in Annex C.

B. WTO Reference Paper and the EBRD assessment model

Some telecommunications services, mainly value added services, were included in the Uruguay Round of trade negotiations which took place between 1986 and 1994. After completion of these negotiations, WTO Members decided to open special negotiations for trade in basic telecommunications services, such as voice telephony, data transmission and satellite services. These additional negotiations took place from 1994 to 1997 and around 70 countries agreed in February 1997 to open their markets for basic telecommunications services in a multilateral agreement. Since then, more countries have become WTO Members and/or signatories to the agreement on basic telecommunications services. The agreement itself is complex and allows each signatory to define its own set of commitments, i.e. which services can be open for international competition, the categories of business models that would be allowed and whether to extend these commitments to other countries or not, through most-favoured-nation clauses.

The agreement also includes provisions for how this international competition shall be regulated. This is done through a “Reference Paper”, which defines a set of regulatory principles for the establishment of fair market conditions. In the context of the trade negotiations that took place, the countries were given the choice of making a formal commitment to accept the Reference Paper. Most of the WTO Members made this commitment. At this time around 75 countries, including the EU Member States, have accepted the Reference Paper. From a legal point of view, a commitment to the Reference Paper means that it is part of the international treaty and therefore binding on the WTO Members.

The WTO Reference Paper itself is a short 2½ page document that sets out rather broad and general principles which have achieved a high degree of consensus. Its main points are:

- Competitive safeguards
  - Prevention of anti-competitive practices
  - Safeguards
- Interconnection
  - Interconnection to be ensured
  - Public availability of the procedures for interconnection negotiations
  - Transparency of interconnection arrangements
  - Interconnection: dispute settlement
- Universal service
- Public availability of licensing criteria

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7 The full name of the agreement is Scheduled Commitments on basic telecommunications services annexed to the Fourth Protocol of the GATS (15 February 1997)
8 http://www.wto.org/english/news_e/pres97_e/refpap-e.htm
- Independent regulators
- Allocation and use of scarce resources

By comparison, the EU framework is set out in several directives with around 100 pages of detailed specification of how these principles should be implemented.

The EBRD assessment model is based on the WTO Reference Paper, but many of the specific indicators are drawn from the examples provided by the EU framework. The structure of the assessment model is as follows:

- Institutional framework
  - Regulatory independence
  - Dispute resolution and appeal
- Market access
  - Access to non-scarce resources
  - Access to scarce resources
- Operational environment
  - Safeguards
  - Interconnection and special access
- Universal service

A full description of the EBRD assessment model is provided in Annex C.

C. Explanation of assessments and results

1. Spider diagram

A spider diagram presents the main results of the Assessment. It includes six main group indicators. For each indicator, the diagram presents the scores as percentages of the maximum achievable score. The scores begin at zero at the centre of the chart and reach 1.00 at the outside, so that in the overall chart, the wider the web, the better the scores in the assessment.

This type of diagram is useful because it provides a summary of the assessment at a quick glance. However, it is not able to show the relative weight given to each group indicator. Nor is it able to present negative values. This means that it cannot include universal service, which is handled in the assessment model by the alternative means of applying a negative score to unsatisfactory results. Where this occurs, it is mentioned in a note below the diagram.

For a more detailed description of the assessment model, see Annex C.

The six group indicators shown in the spider diagram are:

8. Regulatory independence – maximum 22 points

   This group indicator is intended to show whether the legal framework includes a regulatory authority that is independent from the operators, reasonably independent from political pressure and with sufficient powers to regulate the market.

9. Dispute resolution and appeal – maximum 10 points

   Points have been assigned where the National Regulatory Authority (NRA) has the power to resolve commercial disputes between operators and can demonstrate that such disputes have been resolved. The group indicator also assigns points where there is a reasonably efficient appeal mechanism. Most countries have the possibility to appeal a decision by the NRA to the administrative court system. But a country has points taken away if the appeal procedure takes too much time or if the appeal mechanism is not being used.

10. Market access wired – maximum 20 points
This group indicator looks at the authorisation framework for networks and services that do not depend on scarce resources. A country has points taken away if there are services that are not open to competition, if the licensing fees are high and if the authorisation framework is complex and there is uncertainty whether licences will be granted.

11. Market access radio – maximum 10 points

This group indicator looks at whether the regulatory framework provides certainty for non-discriminatory access to radio spectrum. It also considers whether numbering resources are available to all operators.

12. SMP and safeguards – maximum 20 points

Competitive safeguards are those measures that are intended to protect new entrants against the anti-competitive practices of incumbent operator(s) with significant market power.

The model identifies if there are formal and objective procedures to identify the existence of significant market power. It assigns a higher value if this procedure is based on a formal market analysis according to competition law principles and a lesser value if a simpler procedure based on market share is used.

In addition, the assessment model looks for specific implementation (in legal provisions and in practice) of number portability, carrier selection and carrier pre-selection.

13. Interconnection and special access – maximum 18 points

This group indicator gives points for the existence of a reference interconnection offer (RIO) that is approved by the NRA and published. However, a country has points taken away if the legal framework does not set out requirement for non-discrimination for RIO usage or if there is little evidence that the RIO is being used.

Similarly, the assessment model looks for the existence of a reference unbundling offer (RUO) and assigns value where a RUO has been approved and additional points if it is used to provide services by alternative operators.

14. Universal service

The WTO Reference Paper does not require a universal service policy. But if such a policy is implemented, it should meet certain criteria:

- the objectives should be reasonable in light of the national economy and the status of the network(s).
- the objectives should be expressed in a form that is technologically neutral. (For example, they should take into account the contributions of mobile networks to the provision of universal service.)
- the obligations arising from universal service obligations, which may be a funding requirement for some of the competitors, should be non-discriminatory, competitively neutral and not overly burdensome. They should not be perceived as a barrier to market entry.

If these criteria are not met, a negative value may be assigned. Spider diagrams cannot reflect negative values. Where such negative values occur, it is mentioned in a note under the diagram.

2. Fixed network penetration

This chart provides the fixed network penetration defined as active subscriber lines as a percentage of population. The averages are defined as follows:
The EU average is the average for the EU Member States as reported by the Commission Staff Working Document of June 28, 2006 on the Review of the Scope of Universal Service in line with Article 15 of Directive 2002/22/EC. (SEC(2006) 816).

The SEE average is the average for Albania, Bosnia & Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia and Kosovo as reported in Cullen International’s first report of the study: Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries for the European Commission. Turkey, which is included in the report for the European Commission, is not included in the averages for SEE in this report.

The CIS average is the average for the Commonwealth and Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) plus Mongolia as reported in this study.

The EU10 average is the average for the EU Member States that are included in this report, i.e. Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

3. Mobile network penetration

This chart provides the mobile network penetration defined as active pre- and post-paid subscribers as a percentage of population. The averages are defined as follows:

- The EU average is the average for the 27 EU Member States as reported by the 13th Implementation Report by the European Commission
- The SEE average is the average for Albania, Bosnia & Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia, Kosovo and Turkey as reported in Cullen International’s first report of the study: “Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries” for the European Commission. Turkey, which is included in the report for the European Commission, is not included in the averages for SEE in this report.
- The CIS average is the average for the Commonwealth and Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) plus Mongolia as reported in this study.
- The EU10 average is the average for the EU Member States that are included in this report, i.e. Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

4. Broadband network penetration

This chart provides the broadband network penetration defined as the number of access subscribers with speeds of 144k/bits or more as a percentage of population. The averages are defined as follows:

- The EU average is the average for the 27 EU Member States as reported by the 13th Implementation Report by the European Commission
- The SEE average is the average for Albania, Bosnia & Herzegovina, Croatia, FYR Macedonia, Montenegro, Serbia, Kosovo and Turkey as reported in Cullen International’s first report of the study: “Supply of Services in Monitoring Regulatory and Market Developments for Electronic Communications and Information Society Services in Enlargement Countries” for the European Commission. Turkey, which is included in the report for the European Commission, is not included in the averages for SEE in this report.
- The CIS average is the average for the Commonwealth and Independent States (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan) plus Mongolia as reported in this study.
The EU10 average is the average for the EU Member States that are included in this report, i.e. Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

Note: The date of the main information used in this assessment is April 2008. Changes that we are aware of that have occurred since Spring 2008 have been incorporated in the report with appropriate footnotes/references. There may have been changes that have occurred that we are not aware of, in which case we would welcome readers to send in details with appropriate reference sources. The regulatory assessment results have used the April 2008 information in order to present a consistent set of results for comparison purposes. Any new information will be used in a full update of the assessment, recommended for 2009.